California Antique Radio Gazette

Official Journal, Southern California Antique Radio Society.

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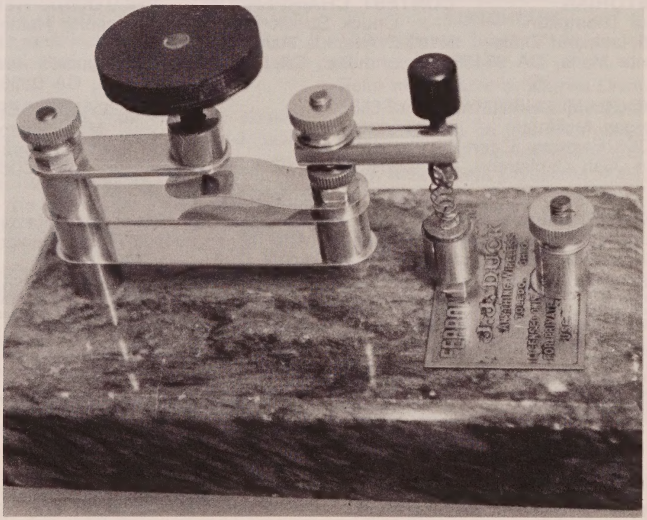
J. J. DUCK



J. J. Duck "Improved Ferron Detector," 1913-1914, marble base. ---- Joe Knight collection

SOUTHERN CALIFORNIA ANTIQUE RADIO SOCIETY

Incorporated, Non-profit Organization

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SCARS is a non-profit organization. Its purpose is to preserve the history of wireless communication by encouraging the acquisition, preservation and exhibition of antique wireless and radio apparatus and publications pertaining to its history and development.

SCARS promotes social contacts through meetings held four times a year at various locations in Southern California. Featured at these meetings are contests, swap sessions and talks by members and guests on subjects of interest to collectors.

The club publishes quarterly the *California Antique Radio Gazette* which features news of club activities, hints on restoration, and advertisement of radio related items available for sale or trade. It is furnished free to all members. Ads are printed free for members. SCARS assumes no responsibility for the condition of items sold at swap meets or through *Gazette* ads.

Membership is open to anyone having a genuine interest in preserving equipment and history of early wireless and radio equipment. Dues are $10.00 per calendar year.

ADDRESS INQUIRIES TO:

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The opinions expressed in the *Gazette* are those of the authors and may not reflect the opinions of the editors or the SCARS membership.

NEXT MEETING
May 19
Velvet Turtle
3210 W. Sepulveda Blvd.
Torrance, CA

PRESIDENTS MESSAGE

I was very impressed to see the turnout at the February meeting. Quite a few buyers and sellers came and remained in the pouring down rain hoping it would eventually subside enough to conduct some business. About an hour before the business meeting, we were able to use an inside hallway at the Velvet Turtle where we set up tables and radios so we could get out of the rain and dry off before lunch.

Thank you Jerry Simpson for giving an excellent seminar on old radio restoration techniques. All of us found it helpful and most interesting.

It appears that we are almost ahead of last year in total paid membership. We will have an accurate number for the May meeting. We are looking for a permanent and centeralized location for our meets. If any of you folks have or know of a facility we might be able to use please let us know.

Chuck Strozier
SCARS President

MAY MEET, TORRANCE

7:00 AM	Buy, sell, trade activities
9:45 AM	Set up for auction
10:30 AM	All auction items in
11:00 AM	Business meeting
11:30 AM	Lunch
12:00 AM	Auction
1:30 PM	Wrap up of auction & adjorn

→ AUCTION ←
MAY 19, TORRANCE

The May meeting is featuring the SCARS annual auction. Come prepared to get in on the action. A good assortment of items is expected, such as magazines, books, radio sets and equipment of all kinds. See SCARS auction rules in this issue.

ANNOUNCEMENT
LUNCHEON

Velvet Turtle lunch $7.00 per person.
Send money now to Murrel Crump, 1633 Buena Vista, Palm Springs, CA, 92262. Get in on the May meeting lunch and beat the deadline of 10th of May. Make check payable to SCARS.

NOTE

All sellers will be assessed $3.00 at the May meeting.

ACCOMMODATIONS

For those staying overnight, group rates have been obtained at the following motel near the Velvet Turtle. Be sure to call in advance.

GALLERIA TRAVELODGE
2740 Artesia Blvd.
Redondo Beach, CA 90278
(213) 370 ,4353

NOTICE

Only SCARS members may sell at SCARS meets.

THE NATIONAL HFS RECEIVER

Technological Marvel Flops in Amateur Marketplace

By Robert E. Grinder, K7AK

Whereas events of WWI drew attention to frequencies below 200 meters, WWII focused attention on the spectrum associated with 2 meters (150 MHz). The Military Services produced beacon receivers at 75 MHZ, pulse transmitters at 150 MHz, a variety of walkie-talkies and field transmitter-receivers from 50-250 MHz, aircraft glide path receivers at 335 MHz, radar at 500 MHz, etc.

On the home front, in a program that the FCC designated "The War Emergency Radio Service" (WERS), thousands of amateurs and civilians were authorized to operate on the amateur 2-1/2 meter band. WERS nets blanketed the nation to ensure that communications would be available to communities should an emergency arise. (The Los Angeles net was assigned in 1943 the call letters, KGCL). WERS operators nationwide fashioned fixed, mobile, and portable gear from whatever could be lifted out of junkboxes and trashed broadcast receivers, since tubes and parts for constructing HF equpment were hard to come by during the war years.

A few days after V-J day, amateur operation resumed on 2-1/2 meters. The band sprang to life instantly when licensed WERS operators put on the air their "homebrew" gear. As military services, fire and police departments, news services, commercial airlines, and FM broadcast stations clamored for frequencies, amateur bands were shuffled about; eventually, but before the lower-frequency amateur bands were released, the FCC authorized operation on the 11, 10, 6, 2, and 1-1/4 meter bands.

Following the war, the Committee on Propagation of the National Defense Research Committee issued a three volume summary of wartime research into tropospheric propagation. The report indicated that further research was necessary to understand such matters as atmospheric reflection, long distance propagation in the 100 to 200 MHz region, and tropospheric propagation over various types of terrain and water surfaces.

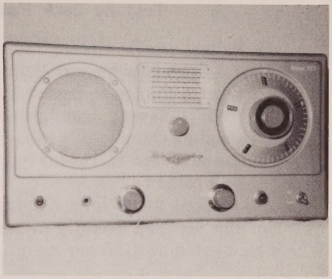
The management of the National Company reasoned that amateurs were positioned uniquely to address these complex problems. Since amateurs were located throughout widely scattered sections of the country, National noted that they could add to the knowledge base by making simple geographic comparisons. Management resolved, therefore, to stimulate the research of amateurs by providing them with the most versatile VHF receiver ever produced commercially.

The National HFS thus appeared on the scene, April, 1948, for the remarkably low price of $125 plus power supply. Advertisements heralded it as "ideal for the amateur, laboratories, fire and police departments, news services, airlines and others." Although housed in a steel cabinet without handles (8-1/2 H x 10-1/2 W x 16-1/2 L), National Co. declared the HFS suitable for mobile and portable as well as stationary operation.

Neither before nor since has there been a receiver like the National HFS. It is a seven tube, superheterodyne-superregenerative receiver-converter with continuous frequency coverage from 27 to 250 MHz (11 through 1-1/4 meters). Adjustment of the regeneration control of the superregenerative second-detector provides for three modes of operation, which, in turn, produce four modes of reception. When the control is set in the non-oscillating mode, stable AM signals are readable; in the oscillating mode, CW is copyable; in the superregeneration mode, modulated oscillators and FM signals are understandable. For increased efficiency the HFS uses six plug-in coil sets, which cover, respectively, 27-42 MHz, 41-60 MHz, 56-80 MHz, 80-120 MHZ, 120-178 MHz, and 178-250 MHz. A calibration chart for the HRO-style, micrometer dial, makes possible relatively precise frequency readings.

A noteworthy feature of the HFS design is its capability of functioning also as a converter, at 20.7 MHz output, ahead of a communications receiver. When used in this manner, especially on the 6 and 10 meter bands, the HFS not only improved image rejection for single-conversion superheterodynes of that era, but produced an extended frequency range from about 500 meters to one meter. A fantastic feat in the year 1948.

The National Co. was so proud of the VHF tuning assembly it had developed for the HFS that it offered it to amateurs as a two tube, intact unit (6AK5 first-detector and 9002 high-frequency oscillator) for $39.50, including one set of coils. Extra coils were $3.24 a set.



The National HFS. Note calibration chart, upper center.

In spite of its incredible frequency range and its multiple functions, the HFS flopped financially. Production ceased by mid 1949. First, the scientific research community failed to share National's enthusiasm in encouraging unsystematic propagation reports from amateurs. Second, amateurs tended to concentrate their operation on only one or two favorite VHF bands, so those to whom the versatility of the HFS appealed were few in number. Third, given the absence of a RF stage and the inherent instability of the high-frequency oscillator, the HFS, although somewhat more selective, is only comparable in sensitivity to a simple superregenerative receiver. Consequently, while the double-conversion feature reduced images, the HFS in front of top-of-the line communications receivers sacrificed a great deal of sensitivity on 10 and 11 meters.

The National HFS is rarely seen at contemporary swapmeets. Its limited production run contributes to its current scarcity, which, along with its distinctiveness, makes the HFS an especially desirable collector's item.

HERBERT HORN MEMORIES

Told by Jack Fuller, Edited by Floyd Paul

Jack Fuller[1] recalls making radio sets about 1923 when he was living in Iowa. Over a four year period he made three different configured radio sets, selling them locally in Des Moines. The sets used Harkness type circuits. Jack came to Los Angeles in 1929 and worked for Collins Kelvinator Co. and serviced Steinite radios where he started at $150 per month.

Jack started working for Herbert Horn (Tiffany Tone radio trade name) in June of 1930 in the service department. As Horn's Service Manager he was in charge of four service men. There were some serious problems and he made a couple of changes among them immediately. Jack said the first location he worked at was 1701 So. Hill, but remembers the company moving to 1201 So. Olive about 1935.

Jack Fuller recalls a Ken Ormiston coming to the Horn plant and helping in the design of the first superhet circuit. (Ed. note: This was likely in the late fall of 1930). Jack said that after awhile he took on an additional job as an outside salesman for the Tiffany Tone product line. He remembers calling on the Platt Music Co., Sam Bean, and John Holland Electric, among others. According to Jack the name Tiffany Tone came as a result of H. Horn's visit to the East where he saw the name on a jewelry store and liked it.

Jack has a photograph of a Majestic Radio Sales School graduating class in Chicago, dated May 26 — 30, 1930, Class No. 28 in which 232 people are shown. Most, if not all of this class came from Los Angeles. Among the people, who were named, the editor saw K. G. Ormiston, H. D. Hatfield, Sam Bean, John Holland, W. Ungar, V. Salmacia, and Jimmy Dean, among many others with familiar names.

(1) H. W. (Jack) Fuller, retired, living in Monterey Park, California.

TIFFANY-TONE
QUALITY FEATURES
FOUR SCREEN GRID
The New TONE CONTROL
A TURN of a KNOB emphasizes BASS or TREBLE. Changes the pitch to suit your taste.

INSTRUMENTS AND MEASUREMENTS

by Ed Sheldon

RESOURCES FOR INFORMATION

A number of you have written to me asking for information about radio instruments and related topics. Over the years I have had to dig up information on a wide vatiety of subjects. Keep your questions coming because I am always glad to hear from and share information with you. For your interest I have listed sources that have been helpful to me in writing articles for this column. Perhaps they will be useful to you also.

Libraries — Your local city or county library may be a good resource. Give it a try first, however, expect to find much of the old material has been culled out or is in storage or is possibly on micro film. The libraries do this to make room for current material.

In San Diego where I live the library of the University of California, San Diego is very good. It is located in La Jolla so it is close to where I live. It would be easier to tell you what they don't have than to tell you what they have. You probable cannot check out any of this material but libraries will usually have photo copy machines readily available. Radio and electronics material is often not kept in the main library but may be located in a satellite library near the Electrical Engineering Dept. Be sure to check this point if you are on any college campus. If you are in the L. A. area you may want to try the UCLA or the USC library. If you live in the Bay area try the UCB library. It is one of the largest in the world. Also the Stanford library is very good. Before you visit any University facility be sure to call to check on the parking rules and regulations.

Books and Magazines — These may be found at swap meets, rummage sales, second hand book stores, garage sales and fellow collectors.

IRE journals and Electronic magazines — Copies that have not been bound or have not had the ads striped out are best and are great sources of information on old instruments. General Radio for example ran ads for years in issue after issue of the IRE journals.

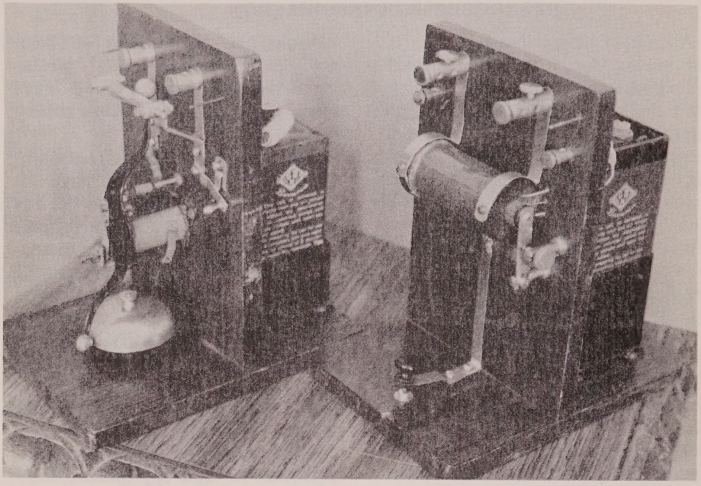
Friends and SCARS club members — I have found club members and ads in the *Gazette* to be a very good resource for information of all kinds.

Manufacturers — Many manufacturers of radio equipment have closed up shop. With a couple of exceptions I have not found them to be a good resource. Some dealers have reprinted old instruction manuals and these are a good source.

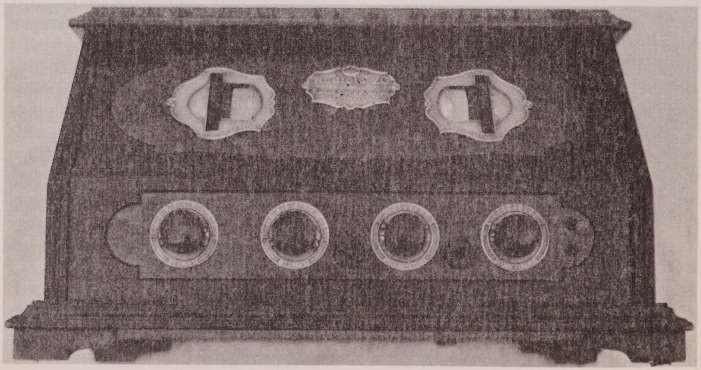
Secretary's Message

SCARS exchanges *Gazettes* and Newsletters with a number of other Antique Radio Clubs around the country and around the world for that matter. After a limited circulation this material comes to me to be held in the club files.

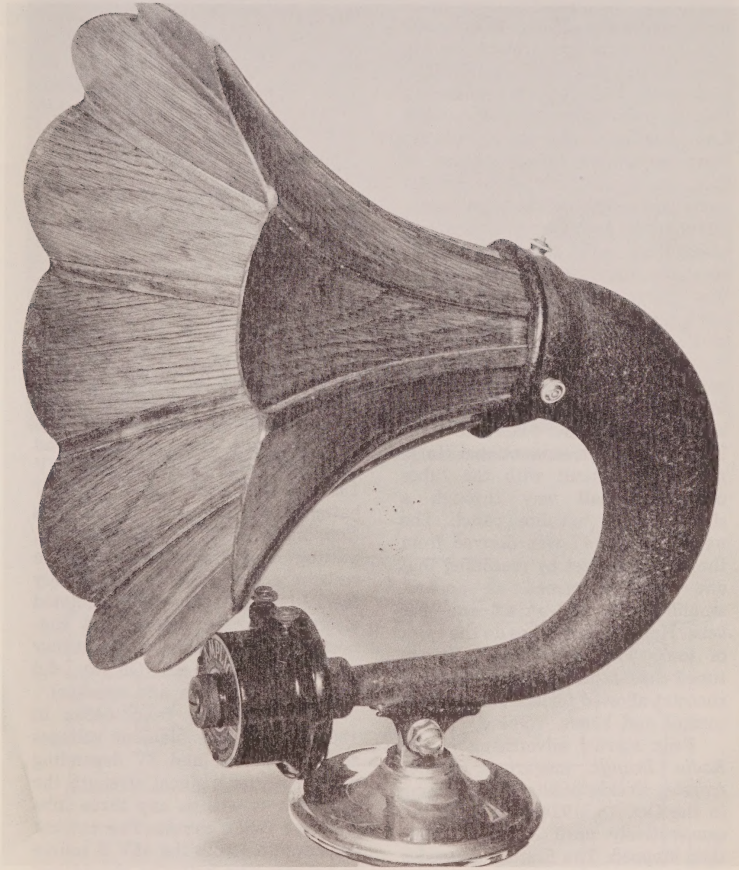
Several members have expressed an interest in seeing what we have. I plan to take a box of this material to our May meeting. Members will get a chance to look the publications over. Please remember that some of this material is marked "copyright" so that it cannot be copied without the copyright owner's permission.



Wireless Apparatus, spark sender & coherer receiver with original batteries. Working distance 10 meters. Made by Bing-Spielman, Germany, 1912 ---- Joe Knight collection



RCA Radiola 20, five tubes, UX 199s and a UX 120, 1925. Adjustable regeneration in the detector stage, well built and easy to repair. ---- Floyd Paul collection



Amplion AR-19 wood bell horn (English made) ---- Alan Douglas collection

ADVANCE ELECTRIC MODEL 4

By Floyd Paul

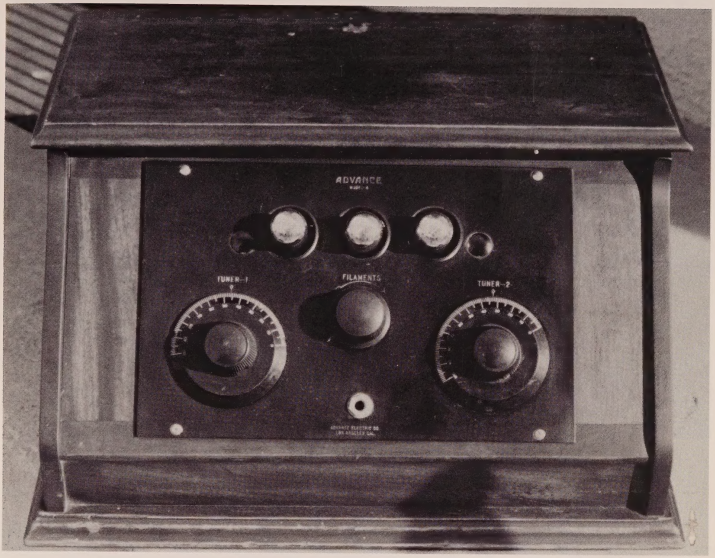
By the Spring of 1924 Fritz Falck, owner of Advance Electric Co., had marketed radio power transformers, c.w. rectifiers, battery chargers, condensers, and a fixed crystal detector for reflex circuits, among other radio part products. By the summer of 1924 reflex receivers had become popular and over one dozen Los Angeles radio entrepreneurs were assembling and marketing reflex sets. Since Fritz made several parts for reflex radios what better use could he put his company to than assembling and marketing reflex sets? By August of 1924 his design was frozen and in a September, 1924, issue of *Radio Journal* magazine an advertisement on the "New Advance Model Four" appeared. It is believed the company followed the Model 4 with a two tube set a few months later. Model 4 set used three UV'99 tubes in a conventional Harkness reflex circuit with the tubes protruding half way through a sloping front bakelite panel. The name "Model 4" was derived from the three tube set by reasoning that one tube performed as an r.f. amplifier tube and an a.f. amplifier tube. Hence, three tubes do the work of four. Two variable condensers tuned the r.f. and detector stages. A rheostat allowed for filament voltage control and hence, volume.

Fritz started advertising in the *Radio Doings* magazine (a Los Angeles weekly publication) starting in the Oct. 18, 1924 issue. Ads ran consecutively until Jan. 10, 1925, then stopped. The first ad showed a complete set with tubes and batteries, less speaker, for $90. Ads noted the sets were on display at Platt Music Co. stores. Paul Buehler[1] who was the Service Manager for Platt Music Co. in 1924, says he remembers well the truck loads of Advance Electric Co. products coming to the warehouse at 800 No. Spring in downtown Los Angeles. By Nov. 15, Fritz Falck had Walter Gray Company listed as exclusive distributor in San Francisco, Los Angeles, and Seattle. The price was announced as $70., less accessories.

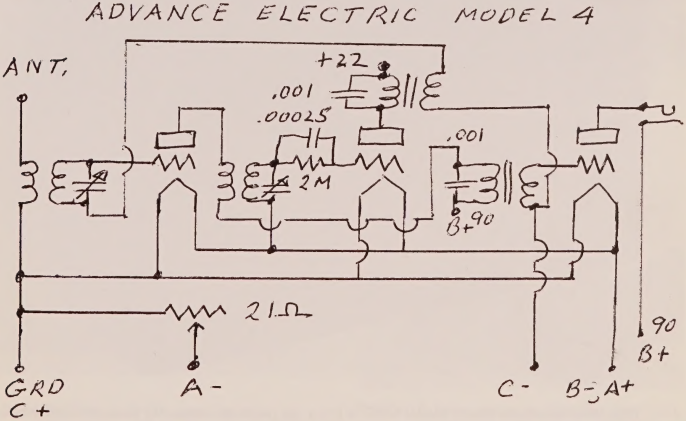
The author's set was a trade acquisition from Paul Thompson at the Nov., 1989, Norwalk, SCARS annual meeting. After surveying the set electrically, the author replaced the two audios (open) with two more of comparable size. Loose and unsoldered wires were resoldered. One mica capacitor was replaced because it had a power factor of more than 10%. Tube contacts were cleaned and terminal nuts were checked and tightened. After putting in three UV 199's, strapping five Radio Shack 9V batteries in series for the B plus (tapping at 18V for the detector), putting a one and two megohm resistor across another 9V battery for 3V of bias, using a 3V regulated electronic power supply, and connecting all of the above, the author started playing the set. (Oh yes, I did connect an antenna and speaker).

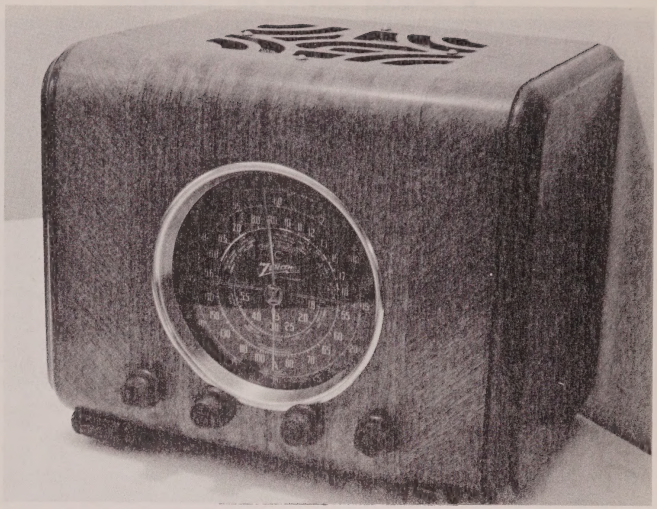
The set tunes from 640kc to 1300kc. With the filament voltages set between 2.6 and 3V depending upon a station's signal strength the set plays as well as any three tube '99 tube reflex circuit. The current consumption from the 45V B source is 1.5 ma. The batteries should last for hundreds of hours at the above rate.

(1) Paul Buehler, retired, living in Arcadia, California.

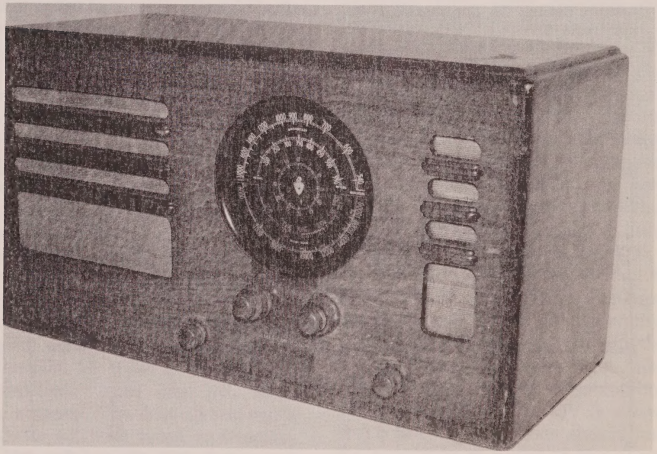


Advance Electric Co., Los Angeles, Model 4, 1924, three tube reflex circuit. ---- Floyd Paul collection

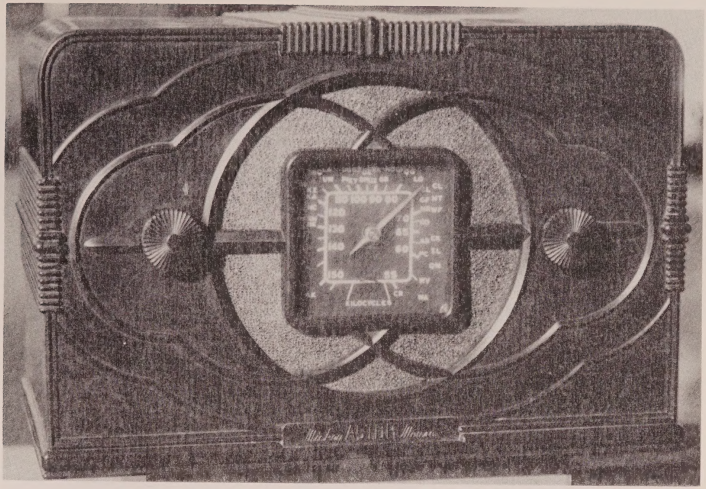




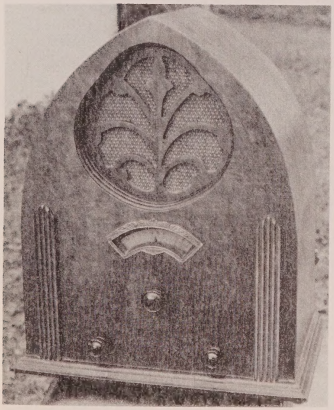
The woodworking on top for the speaker makes this a special radio. This 1937 Zenith 6S222 is the latest addition to my collection. ---- Ed Krovitz collection



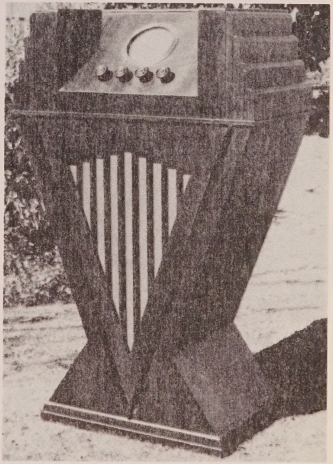
This 1936 American Bosch model 660T is from my parents' home. My first recollection of radio is "Big John and Sparkie" on this radio. ---- Nancy Krovitz



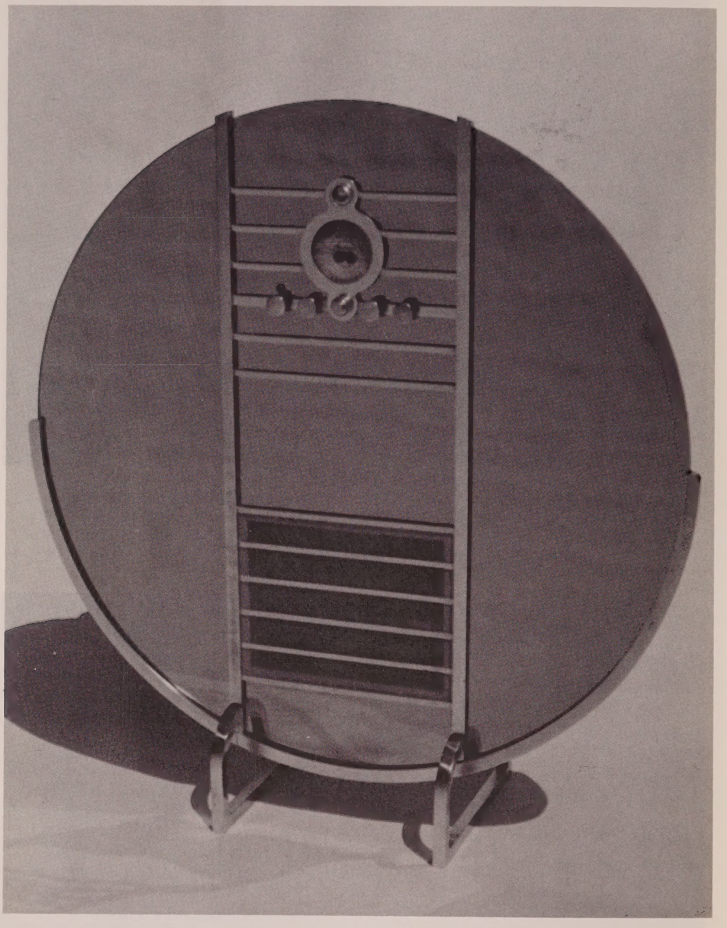
Astor "Mickey Mouse," 5 tube superhet. Made in Australia, 1935. The use of the words Mickey Mouse was not authorized by Disney Studios and resulted in legal action. These pictures were sent to SCARS by John Stokes in New Zealand



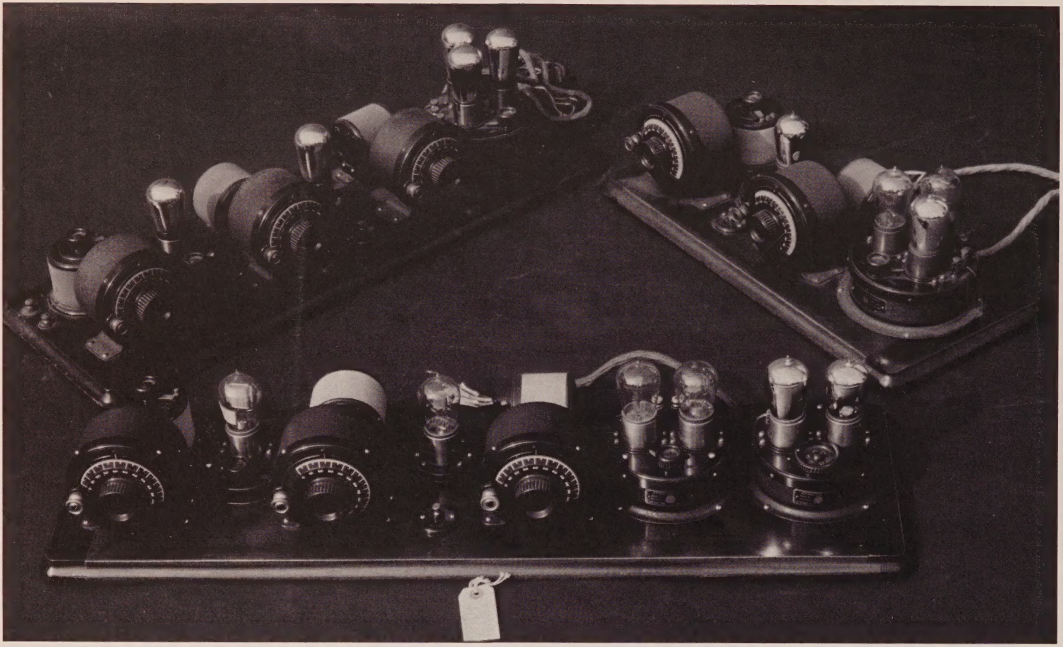
Zaney-Gill "Vitatone" model 54, 6 tube , screen grid, 1930. ---- John Stokes collection



Pacific, 6 tube, made in New Zealand 1934. An unusual cabinet style which was unique in the world. ---- John Stokes collection



1935 Sparton model 811. The Canadian version of the Sparton Nocturne. It is a quality 12 tube radio with a 12" speaker behind a 42" diameter blue mirror. ---- Doug Heimstead collection



The Big Three in Atwater Kent breadboards; Models 9 (short), 10, and 12 (long). All are 100% original, have tags, and are in excellent to like new condition. ---- Martin Folb collection

EVOLUTION OF THE ZENITH TRANS-OCEANIC MULTIBAND PORTABLE RADIO

Courtesy Zenith Radio Corporation

Zenith Radio Corporation's multiband Trans-Oceanic radio, now with a new VHF adjustable weather band, is powered to scan the world's airwaves of communication at the turn of a dial. Its bands have been increased over the last three decades from six to eleven. The latest model, the Royal D-7000Y, is designed to meet the needs of navigators, pilots, outdoorsmen, explorers, foreign ambassadors, farmers, housewives, businessmen and signal-seeking radio DX buffs.

Among the eleven radio bands on the Royal D-7000Y is an adjustable weather band which tunes 161 to 164 MHz. About 60 National Weather Service stations can be received within this range at 162.40, 162.45 and 162.55 MHz. The Weather Service expects to be operating in about 250 more cities within the next four years. The broadcasts include round-the-clock information: forecasts, current temperature, wind, precipitation, visibility and water conditions inland and at sea.

The other 10 bands of the Royal D-7000Y include: 1) AM, 540-1600 MHz., 2) FM, 88-108 Mhz., LW, 150-400 KHz., 4) SW, 1.6-3.5 MHz., 5) 3.5-9.0 MHz., 6) 9.4-10.1 MHz., 7) 11.4-12.33 MHz., 8) 14.6-15.8 MHz., 9) 17.1-18.5 MHz., 10) 20.6-22.4 MHz.

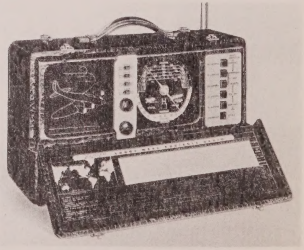
The portable Royal D-7000Y operates on nine "D" type cell batteries or AC current, 115V or 230V in offshore countries. Its cabinet is styled in ebony color with chrome color trim and padded vinyl sides for rugged durability. It has a big six-inch oval speaker and features manual RF gain control, beat frequency oscillator, vernier tuning and a norm-sharp IF switch. It also includes a convenient time zone scale, logging scale and azimuth compass for navigational benefits. There is a provision for tuner output on the cabinet as well as an earphone outlet.

This new Trans-Oceanic radio is designed and treated to operate in extreme climate conditions.

History

The history of the Trans-Oceanic radio begins in 1939. Since standard broadcast reception at his Canadian fishing lodge was very poor, Commander E. F. McDonald, Jr., Zenith's late founder-president, asked the company's engineering staff to develop an experimental shortwave battery-operated portable radio. With this set aboard his electric trolling boat, the Commander was able to receive weather predictions by shortwave from Lorain, Ohio, and, out of curiosity, even programs from London, England.

When he discovered that this original model required extreme care for tuning, he instructed Zenith engineers to design a combination broadcast and shortwave receiver with broad band spreads for easier tuning.



Thousands of orders for this 1941 Trans-Oceanic portable radio had to remain unfilled when Zenith converted 100% to war work.

After more than two years of research that involved 20 different experimental models, McDonald took one to Northern Canada and sent another to Commander Donald B. MacMillan in the Arctic. MacMillan checked it out on Baffin Island, and then further north on Ellesmere and Greenland in the Etah-Smith Sound region. Finding it fully satisfactory, he radioed McDonald his approval and the set went into mass production some months before the Zenith factory converted 100% to war production in 1941.

When World War II production began, Zenith had unfilled orders on hand for more than 100,000 Trans-Oceanic portables. It was unable to fill most of these, but many thousands were produced and shipped. These sets were carried to every war theater by American soldiers and officials, and earned a world-wide reputation for outstanding performance and rugged durability.

Some of the reports Zenith received about its Trans-Oceanic radio are almost unbelievable. Sets were dredged out of water-filled shell holes, dried in the sun, and put into service. In many locations around the world the Trans-Oceanic portable proved to be the only radio receiver of its kind that could give dependable long distance reception. For thousands of American soldiers this radio was the only source of direct news from home.

A typical comment from an officer in the British Army: ". . . during the whole war, it (the Trans-Oceanic) was either with me or close behind with my luggage.

"From then 'till now, the set has accompanied me to Kenya, Tanganyika, Ethiopia, British, Italian and French Somalilands, Sudan, Egypt, Greece, Palestine, Aden, India, Burma, Malaya and last but not least, England.

"Besides being under enemy fire, it has stood in the open in blistering heat and sandstorms, likewise in monsoon rain and snow. It has been carried on camels and mules, in trucks and armoured cars, in trains and ships. I have watched it dropped into cargo-holds by coolies, and have sympathized with it after suffering a kick by a donkey; on at least one occasion in the bush, a lion has had a good sniff at it at night.

"As a result of, or perhaps in spite of, such treatment, there has been no occasion during its ten years life that the set has failed to work, and for 95% of the time it has been absolutely first class. Even today people comment on its tone and performance."

Royalty and the Radio

The Trans-Oceanic has also been used by international royalty (one of whom ordered the set by the dozen, with his personal crest emblazoned in gold on the front of each cabinet); ambassadors; other members of the diplomatic service here and overseas; missionaries; engineers; explorers; journalists; mountain climbers; geophysicists; anthropologists; political commentators; newscasters; yachtsmen; heads of state; GI's and many others. The list of ownership reads like an international Who's Who.

Advancements Over the Years

Since its introduction in 1941, the Trans-Oceanic radio has gone through the process of improvements to give it much greater sensitivity, selectivity, and an increase in conveniences.

In 1951, for example, Zenith incorporated for the first time in this now world-famous receiver, two new continuous tuning bands that cover

the entire 38 to 150 meter band (2 to 8 MHz.). Announced to yachtsmen as "a king-size aspirin for the headaches of amateur sailors" and the worlds newest aid to navigation," the set was engineered to tune in official marine weather reports, ship-to-ship and ship-to-shore phone conversations, including reports from other boats on position, weather, official time signals, small craft warnings, storm and hurricane warnings — "everything you need to hear and know for greater boating enjoyment and safety."

In 1954, another new version of the Trans-Oceanic radio included: a new type of iron-core loop antenna that, in combination with new circuits, permitted the receiver to reach out three times its former range for standard broadcast reception; a horizontal slide-rule type tuning dial, keyed to a row of push-button band switches, a reel-away takeup on the power cord. Inside the set's cover, Zenith located a series of flip charts, including a world-wide time map, wind and weather broadcast schedules for river, lake and ocean navigators, and listings for all major short wave stations as well as the Voice of America, the United Nations radio and Armed Forces radio.

1955 Trans-Oceanic radio

Tubeless and Transistorized

Next, McDonald requested company engineers to develop a transistorized Trans-Oceanic portable radio that would "equal or better the performance" of the famous vacuum tube version. He stipulated that the global receiver must be so compact that there was no room inside for even a teaspoon of sugar or the engineers "were going to get it back."

In 1957, after a three year investment of engineering, tooling and field tests, Zenith announced "the world's first all-transistor band-spread shortwave portable radio." It weighed only 13 pounds, complete with batteries, and was by far the smallest and lightest band-spread shortwave portable radio ever built featuring eight radio bands.

Packaging all the components and circuitry into a case measuring 10-1/4" high, 12-1/2" wide, and 4-7/8" deep represented a major achievement in miniaturization. It included a new rotary band switch and associated circuits for electrical band-spread tuning which occupied a fraction of the space required in vacuum tube short wave sets. The band selector switch rotated a "rolling pin" dial scale so that only one tuning band was visible at a time.

The newcomer of Trans-Oceanic radios needed only ordinary flashlight batteries for power. It had 9 transistors, 9 tuned circuits, and a 3 gang tuning condenser with tuned radio frequency stage to provide superb selectivity. In addition, Zenith engineers rated the undistorted power output at 500 milliwatts.... 92% more undistorted power output than any tube type short wave portable.

The eight tuning ranges included 540 to 1600 KHz, standard broadcast; shortwave 2 to 9 MHz, and the 31 meter band from 9.4 to 10.0 MHz; 25 meters from 11.4 to 12.2 MHz; 19 meters from 14.7 to 15.7 MHz; 16 meters from 17.1 to 18.5 MHz; and 13 meters from 20.7 to 22.4 MHz.

In 1958, Zenith added the 150 to 400 KHz long wave band. This 9-band set was named the Royal 1000D.

In 1962, Zenith announced "the ultimate in personal radios" — a 9-band Trans-Oceanic, the model Royal 3000. This tubeless receiver combined superlative performance and virtually "drift-free" tuning of the FM broadcast band with new sensitivity on short wave, long wave, and standard broadcast bands.

It was similar to the Royal 1000 less the 13 meter band and plus the FM broadcast band (88 to 108 MHz.).

Like their vacuum tube predecessors, tubeless Trans-Oceanic radios traveled the four corners of the world — by air, train, truck, jeep, donkey, camel, dogsled, dhow, fishing boat, racing yacht, pleasure craft, etc.

1,000,000

In August of 1964, the one millionth Trans-Oceanic portable radio was produced by Zenith in its Chicago Plant #2 facility where these sets continue to be manufactured today.

In 1968, the Trans-Oceanic was changed significantly — this time by the addition of two bands. The new Royal 7000 model featured 11 bands and was powered to span the globe and receive even more information locally.

One addition was a VHF fixed crystal weather band at 162.55 MHz. The set was tuned to the weather position to hear up-to-the-minute weather reports from the National Weather Service. The second band addition was short wave (a division of the earlier 2-9 MHz. spread), making a total of seven short wave bands, long wave, FM, AM, and weather band.

Other improvements in the Royal 7000 include a beat frequency oscillator and manual RF gain controls to receive more stations.

In 1971, the Royal 7000 was further refined with replaceable crystals for the weather band enabling the listener to receive weather stations assigned to frequencies other than the common 162.55 MHz.

In 1972, the Royal D-7000Y was improved again with the addition of the adjustable weather band and minor cabinet changes.

(Printed in 1972)

BOOK REVIEW

Radio Manufacturers of the 1920's, Vol. 2.

Author Alan Douglas

Vol. 2 covers Freed-Eisemann to Priess and was written in the same well presented manner as Vol. 1. The book is packed with organized material and was just as much fun to read as Volume 1. Some of my favorite companies like Music Master, Midwest, and Grebe, among others were well covered as to background, key people and events of the era. Advertisements in contemporary magazines were shown, marketing dates were indicated and a general description of radio sets was given.

History buffs, collectors, and anyone interested in radio during the 1920s will find Vol. 2 worth obtaining. Sources for the book include several sellers at local SCARS meets.

(Reviewed by F. Paul)

RECOLLECTIONS OF AN OLD TIME RADIO SERVICEMAN

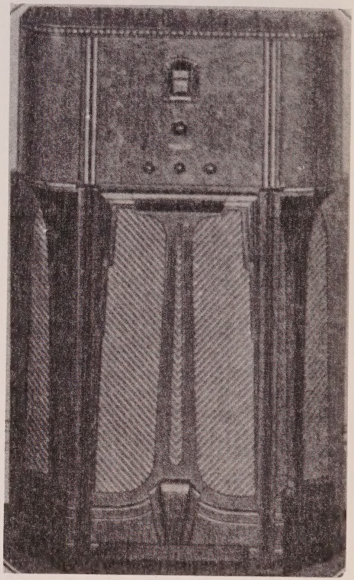
by Ed Sheldon

During the period from 1934 until about 1940 I worked as a serviceman in the San Diego area. During the summers I worked full time and the rest of the year while attending college I worked part time. One of my employers was horrified to learn that I was studying science and engineering. He tried to save me from this fate saying and I quote, "They don't make any money. We have several engineers who are customers of the store and believe me I know what I am talking about."

For those SCARS members too young to remember the economics of this era, $200 was a month's wages for a well paid worker. The average worker was paid $200 for two months of work.

A Philco 200X was priced at $200 and a 1933 Scott All Wave receiver complete with two speakers and tubes was priced at $130 without cabinet. (Cabinets for Scott radios were usually purchased separately). A typical Scott cabinet cost about $48. The best cabinet cost around $200. These sets were way out of the price range the average family could afford.

We had a number of customers who were Scott owners. The sets were not sold through dealers, at least not in San Diego, but I think there was a music store that did handle them in the L. A. area. When we got them in for repair, from time to time, we would match them up against the best Philco models and evaluate them. We also did this with RCA, GE, and Zenith. All I want to say at this point is that the best Philco models were awfully hard to beat.



The 200X introduced by Philco in 1934 at $200 was a true high fidelity set with performance superior to any other radio produced during that period. Needless to say this is a rare radio. ---- Ed Sheldon's favorite radio

CREDITS

Arlo Myers and Walt Curry are proof editors of the Gazette typeset material.This is another behind-the-scenes activity that most readers are not aware is happening. If any members wish to help the Gazette publication in any way please get in touch with Joe or Floyd.

DIRECTOR PROFILES

These profiles update the listing that was started last year in the May Gazette.

Mary E. Ireland

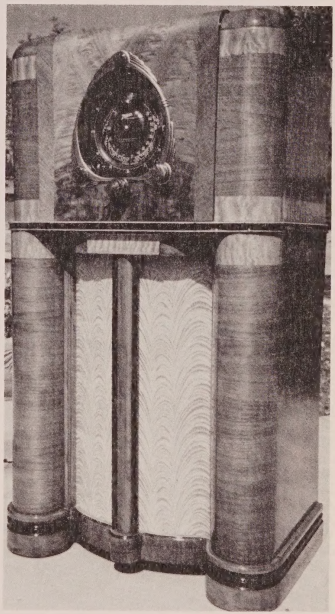
- Lived in W. Germany 3 years
- Attended University of Heidelberg
- BA in Political Science, Cal Poly, Pomona
- District Business Planning Manager, J. C. Penney Children's Division
- Dabble in piano, foreign languages (German, French, Spanish)
- Avid reader
- Volunteer for "Recording for the Blind"
- Married to old-radio-collector, Chuck Strozier

Murrel Crump

- Nine year antique radio collector
- Eight year member of SCARS
- Focus of current collecting; battery sets and horn speakers
- Involved in antique phonograph collecting and restoration
- Age 41, married (wife Carolyn) and two sons (ages 4 & 6)
- Twenty years of work in local government Planning Agencies
- Current employment with private planning consultant firm in Palm Springs

Robert W. Baumbach

- Collector of Automatic Musical Instruments (player and reproducing pianos, coin operated musical instruments, music boxes, automatic orchestras, etc.) phonographs, radios since 1969
- First term as an officer in SCARS
- Graduate Engineer from UCLA (1967) with previous experience in the Aerospace and Entertainment Industries.
- Presently owner of a company which manufactures diamond saws and grinding/polishing tools for the lapidary and stained glass industries
- Author of "Look for the Dog," a history and collector's guide for the products of the Victor Talking Machine Company
- Specialty collector of large, ornate and unusual console radios and phonographs. (ie: E. H. Scott, Capehart, fancy Victrolas, etc).



1938 Zenith, 12S-265 console. Walnut with birds eye maple inlay. Three bands, split dial, motor tuning, first year for green tuning eye, last year for wood knobs, rare, very art deco. --- Dale M. Brown Collection

1990 New Members

(voted-in Feb. Mtg.)

Roger Handy
Charles Dripps
Guy Ball
Carl Bier
Dennis Berg
David Satterness
Jack Elliano Jr. & Spouse
Norman Webster
Robert Schafer
H. Vernon Lee
W. D. Richards
Terence Wesley
David Forgerson
Steve La Pierre
Jack Davis
Thomas Crocker
Jack & Margaret Johnson
Daniel Chiaverini
Edward Barton
Ken Keirle
Cecil Reynolds
Ken Clybor
Leo J. Rivard
Mark D'Incognito
Ronald Mauss
Larry Carrel
John Taylor
T. E. Knudson
Stan Orrett
Kurt Rudolph
Lee & Carolyn Bruton
Gary Halverson
Wayne Ross
John Dho
Dennis Berg
John O'Neill
Bob Lauritsen
Joel Strader
Bob Henderson
Adam Schoolsky
Alex Folb
Willie DeLoach
Jack & Kevin Hermann
Larry Velasco
Bryan Carlton
Max Medeina
Shawn McNally
Brian Estelman
Matt Altschule
Mike Brazil
John Marley
Mike McNeal
Lionel & Kimberly Tyree
A. B. Christianson
A. S. Bruno
Warren Adams
James Allen
Bill Timoszyk
R. & E. Garofalo
Bill Groves
Ed Voralik
Fred Liebman
Michael Barba
Donald Hauff
Harold & Doris Holmer
Jeff & Jolene DeVito
Sally Wright
Richard Grotius
Arnold Widener
Chris Derby
Andrew Coen
R. H. Richardson
Fred Tyerina
M. A. Murphy
Charles Pearlman
Clifford Lundquist

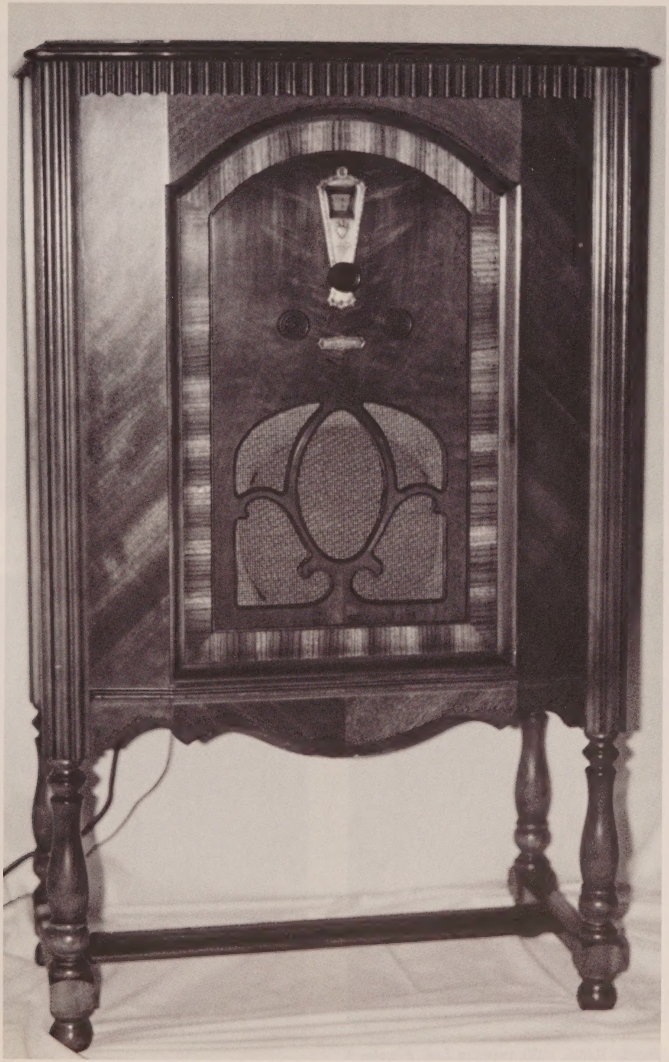
LAWNDALE RADIO MUSEUM

Mac's Old Time Radio Museum in Lawndale is open to the public. The museum is an 18 by 25 foot section at the back of an antique shop at 4335 West 147th Street. There are some real gems among the 130 antique radios, phonographs and wireless sets on display.
(See photo for a fraction of the displayed sets)

MacQuarrie — everybody calls him Mac — is a 67 year old bespectacled man who has spent most of his life around radios. He and his wife of 45 years, Terri, opened the museum in 1989 and believe it is the only antique radio museum in Southern California.

MacQuarrie said he decided to display his collection because it was "just time to share these sets with someone else."

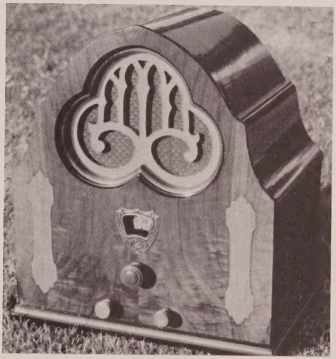
His museum is open Tuesday through Saturday 11 AM to 5:30 PM. His phone number is (213) 675-6017.



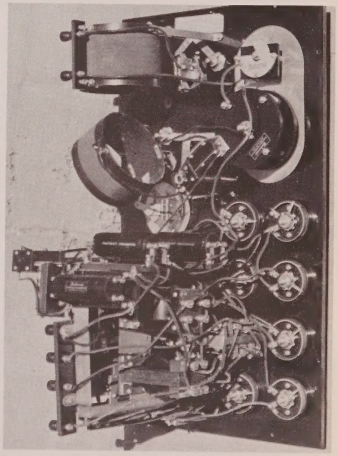
American Bosch, model 20, 1931, superhet with 551s, 27, 47, & 80 tubes. ---- Floyd Paul collection

Zenith floor model 12-S-267. Top of the line model for Zenith collectors. Quilted mahogany on front with black walnut on shoulders. Fully restored. ---- Carol Leeth collection.

Radiola VII B. In my opinion one of the nicest sets ever marketed. Quite rare. Reasonably good performance and tone. Under-panel construction is very novel and compact. ---- Paul Thompson collection



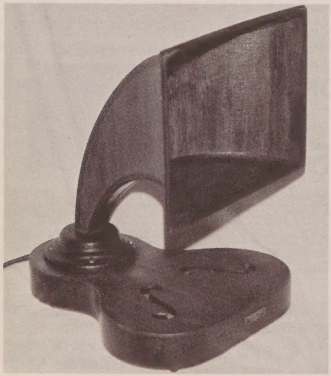
Angelus Radio, 1930, made in Los Angeles.A set rare to many collectors of cathedrals. Fully restored. ---- Carol Leeth collection



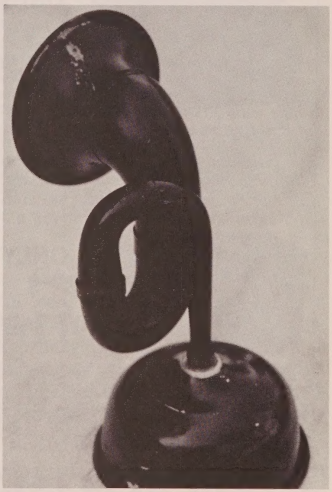
Federal 61, back of the chassis shot. ---- Floyd Paul collection

The original owner of this National ASGX was John J. Glauber, W2CPE, who was at the time Chief Engineer of Arturus Tube Co. It is believed that only 200-400 sets were built. See Bill Orr's article, CQ 11-75. This set uses 77 and 78 tubes. ---- Howard Hill collection.

Kodel horn speaker. ---- Floyd Paul collection



Timbretone horn speaker ---- Floyd Paul collection



Riley-Klotz, "Arkay" radio horn speaker, 1922. Uses and earphone driver. 12" high. ---- Floyd Paul collection

Radio's Greatest Bargains!

THESE are the greatest radio set bargains that have ever been offered. The radio sets listed here are standard sets made by the greatest and best known radio set companies in America.

All of these sets are battery sets (with the exception of the Freshman All-Electric A.C. Set); but this is only one reason why they are sold at such ridiculously low prices.

The other reason is that these sets are mostly demonstration and display models from New York's largest radio and department stores.

We have been able to make connections with a number of houses in New York City, and we secured these fine sets at remarkable prices. Due to these circumstances, we are enabled to sell them to you at only a fraction of their original cost.

IMPORTANT—SET BUILDERS, CONSTRUCTORS AND EXPERIMENTERS

TURN THESE SETS INTO BIG MONEY!

There are still many families and many houses not equipped with radio today. At the prices at which we are selling them, it will pay you to install these sets and sell them at an excellent profit.

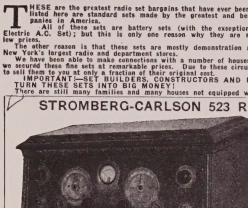
A number of our customers have made as much as $20.00 and $30.00 on each one of these sets by installing them, incidentally making a profit on tubes, loud speakers, etc.

Remember, we do not sell you these sets as brand new. They all have been used somewhat, but they are all in excellent condition, and, by going over the cabinets with some furniture polish, or otherwise renovating them, they will make a first-class appearance and, in most instances, you will not be able to tell the set apart from a new one. This is your great opportunity to make a few extra dollars, and we trust that you will not let this opportunity pass.

We promise you reasonably prompt shipments. We have a large supply of these sets on hand, and, in most cases, can ship within 24 to 48 hours.

ALL SETS ARE TESTED BY OUR EXPERTS AND WE GUARANTEE THEM TO WORK SATISFACTORILY.

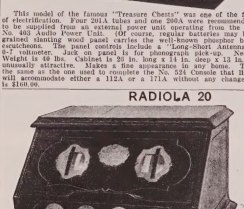
STROMBERG-CARLSON 523 RECEIVER



ONLY $24.95

This model of the famous "Treasure Chests" was one of the first to introduce the idea of electrification. Four 201A tubes and one 280A were recommended; all operating voltages to be supplied from an external power units operating from the lighting circuit, such as No. 403 Audio Power Unit. (Of course, regular batteries may be used.) A beautifully-grained slanting wood panel carries the well-known phosphor bronze tuning and control escutcheons. The panel controls include a "Long-Short Antenna" switch, and a Weston 0-7 voltmeter. Jack on panel is for phonograph pick-up. Neutrodyne circuit is used. Weight is 40 lbs. Cabinet is 20 in. long x 14 in. deep x 13 in. high. Its appearance is unusually attractive. Makes a fine appearance in any home. The chassis of this set is the same as the one used to complete the No. 524 Console that listed for $230.00. Circuit will accommodate either a 112A or a 171A without any changes in wiring. List price is $100.00.

RADIOLA 20



ONLY $12.50

Two stages of tuned radio frequency amplification, a regenerative detector, and two stages of A.F. amplification, using 4 type 199 tubes and a 120 for the last audio stage, is the arrangement of this receiver. Made by Radio Corporation of America. Like the big superheterodynes of the same make, drum dials are used. Three variable condensers are used and these are ganged, and adjusted by the left-hand or "station selector" dial. The two R.F. stages are NEUTRALIZED. Two jacks are provided; a choice of one A.F. or two is obtainable. Two small black knobs on the rear right are controls which vary the filament circuit resistance, and two similar knobs at lower left are controls for the jacks mounted on the panel. Cabinet is mahogany. The tube sockets are moulded in a single strip of bakelite. This strip is supported on sponge rubber. A terminal strip is provided, to which is fastened one end of each battery lead, for wiring. The clever constructor can adapt this chassis to short-wave operation by mounting sockets for plug-in coils, and by doing a bit of engineering with the variable condensers. Overall dimensions are: 19 x 16 x 11 inches high. It weighs 29 pounds. List price is $162.50.

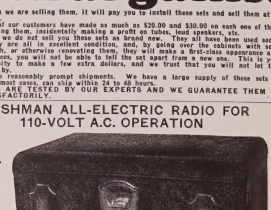
FRESHMAN "MASTERPIECE" TYPE E

ONLY $11.95

This is a single-dial receiver (what everyone wants) and, like the A.K. 35, it uses a phosphor bronze "belt" to couple the three 3-plate brass variable condensers. Six tubes are required for this set. Easy to tune over at a low point. Its overall dimensions are: 20 x 10 x 10 inches high, and the slanting panel measures 7 x 18 inches. The cabinet is crackle-finish metal. Weight of set is 21 pounds. The escutcheon in the middle of the panel has an opening through which the dial setting may be seen; a semi-circular rheostat for volume control is adjusted by the small knob to be seen below the tuning knob. At the extreme left is a little 13-plate condenser connected from grid to filament of the first R.F. tube, for obtaining distant station programs. The first R.F. is untuned, while the second and third are tuned; circuit oscillation being prevented by the use of grid suppressors. This set is designed to be used with five type 201A's and a type 112 tube. The cabinet is of two-tone mahogany veneer, with a nickeled, full-length piano hinge. List price is $89.50.

Send for FREE RADIO SET CATALOG—
A Postal Card Brings It

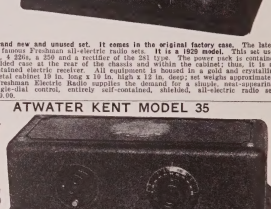
FRESHMAN ALL-ELECTRIC RADIO FOR 110-VOLT A.C. OPERATION



ONLY $31.95

This is a brand new and unused set. It comes in the original factory case. The latest and best of the famous Freshman all-electric radio sets. It is a 1929 model. This set uses 1 type 227 tube, 4 226s, a 250 and a rectifier of the 281 type. The power pack is contained in a small shielded case at the rear of the chassis and within the cabinet; thus, it is an integral part of the receiver. Complete receiver, all equipment is housed in a gold and crystalline satin finished metal cabinet 19 inches wide x 10 in. high x 12 in. deep; set weighs approximately 35 lbs. The Freshman Electric Radio set is designed for a single, semi-aperiodic illuminated single-dial control, entirely self-contained, shielded, all-electric radio set. List price is $99.00.

ATWATER KENT MODEL 35



ONLY $14.95

One of the most compact receivers ever offered to the public. It is of the tuned radio frequency type. The first stage of R.F. is untuned and acts as a "blocking" tube. Circuit oscillation is prevented by the use of grid suppressors, of which two are provided. There is a total of three stages of R.F. amplification and two of A.F. Three variable condensers are used. Overall dimensions are: 17½ x 8 x 5¾ inches. The chassis is housed in a brown crackle-finish pressed metal cabinet. This is a "one-dial control" receiver. A "full vision" moulded bakelite dial controls the variable condenser gang; another moulded control varies the filament heat. It weighs 12 pounds. Incorporated in this set is a 6-wire cable, two wires of which are for tube "heating" purposes. The other four wires are for the B battery. Phosphor bronze "belting" couples the two side condensers to the central one, upon the shaft of which the tuning dial is fastened. This shielded receiver has very high "gain" and may be used with antennas of any length. The variable condensers are of the "single bearing rotor" type. This set takes the following tubes: 5 type 201A and one type 112 or 171A tubes. List price is $65.00.

FRESHMAN 3-DIAL "MASTERPIECE"

ONLY $5.00

This is distinctly a Custom Built set. Where it was thought that a change of parts would improve the performance of the receiver, the change has been made. Although, in the main, the circuit is that of the famous "Masterpiece," there are three standard R.F. coils, and three standard Freshman variable condensers. The panel is of 3/16-inch thick bakelite, panel is mahogany back-tubber, 7 x 18 x 3/16-inch thick; the baseboard is the same size and material. A Cutler-Hammer push-pull snap switch is used. Ample volume control is obtained with the two panel-mounted rheostats. One is 25 and the other is 10 ohms. Two phone jacks are provided for loud speaker connection to first audio or second audio output. Seven battery connection binding posts are mounted on the rear of the baseboard. The dials are black, moulded. This set takes five type 201A tubes. Total weight is 12 pounds. The overall dimensions are: 20½ x 9 x 9-inches high. The cabinet is finished in mahogany, to match the panel. The set lists for $60.00.

HOW TO ORDER

Remit amount by money order, cash or certified check (personal checks occasion delay). Order direct from this page at prices quoted. No. C.O.D. orders on this sale accepted.

RADIO SPECIALTY CO. — **98C Park Place, New York City**

BUY FROM RADIO'S OLDEST MAIL ORDER HOUSE

JUNE 1930 ad

For Sale or Trade & Want Ads

ADS MUST BE SUBMITTED EACH TIME FOR EACH PUBLICATION AND ARE FOR PERSONAL USE ONLY. SCARS WILL NOT PRINT REPETITIOUS ADS. ALL ADS ARE SUBJECT TO EDITING. SCARS IS NOT RESPONSIBLE FOR ANY TRANSACTION OR THE CONDITION OF ITEMS ADVERTISED.

Sale: GE art deco combination radio-phono circa 1935 in like new condition. Classic deco look. $450. Ozarka Sr., with battery box and matching speaker. Excellent original condition. $255. Want: Original grill for Radiola Grand, AK model 5 in exc. original condition. Will pay top price. Dr. Martin Folb, 450 North June St., Los Angeles, CA 90004. (213) 934-5826

Want: Top price or trade for old RCA field coil ribbon mikes; PB-17 or 31 or 4AA condenser. Jim Webb 15117 Hamlin St., Van Nuys, CA 91411. (818) 769-6738

Sale: Vintage TV's, Catalin Radio. Our quarterly newsletter is the only one exclusively devoted to these two. Photos, ads, stories, prices. $14 yearly, current issue, $4. Harry Poster, Sight Sound Style, Box 2224, So. Hack., NJ 07606

Want: Sales material, pictures, ads and other descriptive material on the RCA 15K which was produced around 1936. Ed Sheldon, 656 Gravilla Place, La Jolla, CA 92037

Want: Early transistor radios. Plastic. Made in Japan or U.S. Working or not. Eric Wrobbel, 20802 Exhibit Court, Woodland Hills, CA 91367, (818) 884-2282

Sale: WW2 Jap multimeter. Good condition, and it works. Jap markings translated, $75. Galena cryustal detector. Precision made of brushed brass and black plastic, $10 PPD. L. Gardner, 458 Two Mile Creek Rd., Tonawanda, NY 14150. (716) 873-0447

Want: AK breadboard radios and parts, any condition. Basket cases OK. Get my price. Paul Thompson, 315 Larkspur LDr., Santa Maria, CA 93455. (805)

Sale: Mint Grebe 18 special and Scott Allwave 12 Waverly Grand Cabinet, all coils. Lester Rayner, 5512 N. 71st Place, Scottsdale, AZ 85253. (602) 947-1375

Want: Info. on Australian copy of HRO mod AMR-101 by Amalgamated Wireless Ltd Sydney. Brown, POB 3187, Lancaster, CA 93586

Want: 1BH571 chassis. Scott Philharmonic. Pepsi cooler radio (blue plastic). Gary Glazier, 3031 El Caminito, La Crescenta, CA 91214, (818) 248-1693

Want: RCA model 21-CT-55 (CTV 2B/3A) color TV set. Want original, very good to excellent condition. Complete, but need not work. Gilbert Smith, 248 South 36th St., San Diego, CA. 92113. (619) 236-7990.

Want: Magnetic coil winding machine, like Geo. Stevens Mfg. Co. type. Can be either cam or gear driven. Dan Healy, Box 764, Woodacre, CA 94973. (415) 488-4596.

Sale: Stromberg Carlson 501A batt. set, $125; Federal 417 battery set $200; Magnavox 22" dia. bell (only) $90; General Radio tuning fork osc. (1925) $25; Super Allectric Neutrowound with tubes (scarce) $95; Amplion small cabinet sun burst model horn speaker,$75; Trade: DeForest D7A; WD 11s, brass, tipped, good fil.; Red top tubes in boxes; Magnavox AC-2, Mod. C amp; Want: *Radio Retailing* magazines and unusual horn speakers. F. A. Paul, 1545 Raymond, Glendale, CA. 91201. (818) 242-8961

GAZETTE DEADLINES

All ads, material and articles for SCARS *Gazette*:

February issue . . . . .December 1
May issue . . . . . March 1
August issue . . . . . .June 1
November issue . . . .September 1

Announcement: Please remind all other club members you know to renew their subscription for 1990. Non-renewed members will not be receiving this *Gazette*.

→ AUCTION ←

MAY 19, TORRANCE

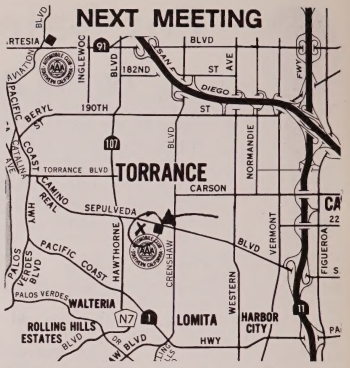
The May meeting is featuring the SCARS annual auction. Come prepared to get in on the action. A good assortment of items is expected, such as magazines, books, radio sets and equipment of all kinds. See SCARS auction rules in this issue.

SCARS AUCTION RULES

1. Minimum item value of $15 is established. Please, no junk.
2. Buyers and sellers must be club members.
3. Bid card will cost $2, non-refundable.
4. Seller must pick up tags and attach them to item, with description and state minimum bid price if desired on entry form. Auction items must be in and tagged by 10:30 AM.
5. Buyers will pay cashier first at the end of the auction. Then sellers can pick up their proceeds (less 10% to SCARS).
6. 10% of all proceeds will go to SCARS. No penalty if not sold.
7. SCARS allows minimum bids (over $15) to be specified. However, sellers should keep them low or bidding may not start.
8. Donations of items to the club by members for the auction are gladly welcomed.
9. $1 minimum bid steps.
10. Limit of five (5) items per member unless approved by the auctioneer.

Once again, Mike Adams will be joining us from Northern Calif. to be our very effective and enjoyable auctioneer.

NEXT MEETING



NEXT MEETING
May 19
Velvet Turtle
3210 W. Sepulveda Blvd.
Torrance, CA

NOTICE

Only SCARS members may sell at SCARS meets.

MEMBERSHIP DUES

Effective immediately, send all new and renewal dues payments to Mary Ireland, 24100-E Avenida Rancheros, Diamond Bar, Ca. 91765.

NEW MEMBER POLICY

Membership in SCARS follows the current calendar year. Anyone joining during Jan.-Sept. is enrolled for the current year and is sent all back issues of the *Gazette* for the current year. The member then continues to receive the rest of the current year's *Gazettes*.

Applicants for membership after Sept. are enrolled as members for the following year. They receive a notice of the year end meeting as well as other current club announcements and are told they will commence receiving *Gazettes* during the next year.